DATE OUT: 25/AUG/09

SUBJECT: PRODUCT CHEMISTR REVIEW OF: TGAI [ ]; MUP [ ]; EUP [x]
BARCODE NO.: 368424 **REG./FILE SYMBOL NO.:** 37842-1
PRODUCT NAME: Uvas Quality Grape Guard **MRID NO.:** 478216-01
COMPANY NAME: Imal Ltda. **ACTION CODE:** 675

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TO: Karen Jones, CRM
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INTRODUCTION:

With this resubmission, the registrant provided additional product chemistry data (Storage Stability and Corrosion Characteristics) to support the reregistration of EPA Reg. No. **37842-1**.

FINDINGS:

1. EPA Reg. No. 37842-1 is an end-use product containing 98% Sodium metabisulfite. The product is produced through a non-integrated formulation process.

2. The storage stability of the test product (packaged in cardboard boxes) was evaluated for a period of one year under typical laboratory (18.6-22.2°C and 47-60% humidity) and warehouse (14.0-30.0°C and 32-66% humidity) conditions. The study was conducted in compliance with the Good Laboratory Practice (GLP) standards. The active ingredient concentrations from both sets of samples were determined initially, and after 3, 6, and 12 months of storage. Sodium metabisulfite was extracted from each pad (six from each set) using the Vogel Volumetric Method (MET USM/015) which involves treating samples with an excess 0.1N iodine solution and titration with a standard 0.1N sodium thiosulfate solution using starch as indicator. The amount of iodine consumed prior to titration is determined by the difference which is equivalent to the amount of sodium metabisulfite present in the original subsample. The results are expressed as percent sodium metabisulfite by weight.

   The Corrosion Characteristics test was conducted in conjunction with the Storage Stability test. The bags and the paper packaging were examined for integrity and signs of damage on the contents to evaluate any corrosion effects of the sodium metabisulfite on the extruded paper and container throughout the storage period.

Results:

Analysis Period	Laboratory stored sample		Warehouse stored sample	
	[g $Na_2S_2O_5$/100g sample]	Ave. ± Standard Deviation	[g $Na_2S_2O_5$/100g sample]	Ave. ± Standard Deviation
Initial	95.4 95.5 96.1	95.7 ± 0.38	95.4 96.2 95.2	95.6 ± 0.53
3 months	95.9 95.9 96.0	95.9 ± 0.06	96.3 96.3 96.3	96.3 ± 0.00
6 months	95.7 95.6 96.0	95.6 ± 0.06	96.0 96.4 95.7	96.0 ± 0.35
12 months	95.4 97.3 95.9	96.2 ± 0.98	96.8 96.5 96.8	96.7 ± 0.19

The average sodium metabisulfite content was 95.8 ± 0.51 [g $Na_2S_2O_5$/100g sample] for the laboratory stored samples and 96.2 ± 0.50 [g $Na_2S_2O_5$/100g sample] for the warehouse stored samples. The difference between the sodium metabisulfite content in pads stored under controlled conditions versus the commercial warehouse conditions was 0.3%. There was no significant difference in the 95% variance analysis.

During the one year study, there were no signs or evidence of damage to the pads and there were no signs or evidence of gas dissipation or corrosion around the storage site.

3a. The active ingredient statement on the label is acceptable in accordance with PR Notice 91-2 and 40 CFR 156.10(g). There are no data present that trigger the Physical or Chemical Hazards statements on the label.

3b. The Storage and Disposal statements must be revised in accordance with 40 CFR 156.10(i)(2)(ix) and PR Notice 83-3:

- The heading "STORAGE" must be changed to "STORAGE AND DISPOSAL".
- The statement "Do not contaminate water, food, or feed by storage or disposal" must be added to the label under the heading "STORAGE AND DISPOSAL".
- The heading "Pesticide Storage" must be added before the statements "Keep this product dry in a tightly closed container, when not in use. Store in a cool, dry, well-ventilated area away from heat and flame."
- The heading "Pesticide Disposal" and the statement "Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility." must be added to the label.

- The heading "Container Disposal" must be added before the statements "In case of decomposition isolate container…but place in trash collection."

The revisions should be addressed during label review.

CONCLUSIONS:

The submitted studies on Storage Stability and Corrosion Characteristics of the product satisfy the requirements under 40 CFR 158.190 corresponding to GRNs 830.6317 and 830.6320, respectively.

The registrant has now satisfied the product chemistry data requirements for the reregistration of EPA Reg. **37842-1**.